

Claims

1.A toothbrush comprising:

an elongated handle with handle grip on first end joined to handle head on second end
5 via neck of said elongated handle; and

a brush head having a bristle pad with array of bristles projecting from bottom side of
said bristle pad and an elastic casing with its access disposed on top side of said bristle
pad, characterized by said elongated handle being engaged with said brush head by
means of inserting the handle head into the casing through its access, said access is at
10 least one through hole, and said elongated handle can be disengaged from the brush
head after engagement of the brush head with the elongated handle by the handle head
taken out of said through hole of the access, said brush head secured to said handle
head by a locking means, said locking means is a toolless locking means formed by at
least one pair of fitting extended pin and through hole, where said extended pin is
15 located on said handle head and said through hole on said brush head, and location of
said extended pin and said through hole must be in such a manner that said extended
pin will securely fit in said through hole after said handle head has been fully inserted
into said brush head.

20 2.The toothbrush as claimed in claim 1, wherein said casing is formed by a base
portion, opposing side walls and a bristle pad, where said base portion is joined to said
bristle pad by means of said opposing side walls.

3.The toothbrush as claimed in claim 2, wherein said casing having an opening to a
25 cavity of said casing is located at first end of said brush head, where said cavity is
defined by interior surfaces of said base portion, said opposing side walls and top side
of said bristle pad.

4.The toothbrush as claimed in claim 1, wherein said brush head has its second end
30 enclosed by a second end wall which is joined to both of said bristle pad and said base
portion to form part of said casing.

5. The toothbrush as claimed in claim 4, wherein a first end wall opposing second end wall, having said opening is joined to said base portion and said bristle pad to form part of said casing, where first embodiment of said base portion and said second end wall are made of elastic material.

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6. The toothbrush as claimed in claim 5, wherein said opening having the shape corresponds to cross-section of said neck of said handle when said handle head is fully inserted into said casing.

107. The toothbrush as claimed in any claim 1 to 5, wherein said opposing side walls and first end wall are made of said elastic material.

8. The toothbrush as claimed in claim 3, wherein said cavity is also defined by interior surfaces of both first end wall and second end wall where the second embodiment
15 shape of said cavity conforms to shape of said handle head or said cavity having its thickness slightly thinner than the thickness of said handle head, so that said brush head encloses said handle head entirely except the part where said neck leads out of said brush head.

209. The toothbrush as claimed in any of claims 1 to 8, wherein said toothbrush having adhesion and suction force that holds said brush head and said handle head together when there is no air in between surfaces of said handle head and surfaces of said cavity.

10. The toothbrush as claimed in any of claims 1 to 8, wherein said toothbrush having
25 thicker handle head than the height of said cavity will cause gripping tension of the elastic base to enhance better holding onto the interior surfaces of the casing.

11. The toothbrush as claimed in any of claims 1 to 10, wherein said brush head can be formed with its exterior surfaces of said base portion, said opposing side walls and
30 second end wall have textured surfaces in order that they act as a gum massager.

12.The toothbrush as claimed in any of claims 1 and 11, wherein said elastic material enables permanent drawings to be imprinted, formed or molded on said casing.

13.The toothbrush as claimed in claim 12, wherein said elastic material is an elastomeric material such as (Thermo Plastic Elastomer) TPE resin and said bristle pad is made of rigid material such as polypropylene or any other cohesive materials that is suitable for planting or tufting arrays of bristles and said elastic material and said rigid material are easily cohered to form said brush head.

14.The toothbrush as claimed in claim 1 to 13, wherein said neck of said handle can be in the shapes of laterally at an angle to one side so that said brush head is at an angle to said handle grip when the toothbrush is viewed with end-on of said bristles in view; at an angle to one side so that said brush head is at a larger angle to said handle grip when the toothbrush is viewed with side-on of said bristles in view; or any other different angles to cater for different modular handles for different brushing needs.

15.The toothbrush as claimed in claim 1, wherein said handle head of said toothbrush is flat, streamlined, symmetrical about its centre and thicker or equivalent in height to the cavity of said casing.

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16.The toothbrush as claimed in claim 1, wherein said extended pin and hole of the pair of locking means can be in any suitable shapes to secure said brush head to said elongated handle.